A graph can be covered with tiles consisting of two vertices and one edge connecting the vertices. If it is possible to cover a graph by those tiles such that each site of the graph is occupied by exactly one tile, the obtained configuration is called a perfect matching. Not all graphs have perfect matchings, but when a perfect matching exists on a graph, the question is how many such configurations does this graph have? For a certain class of graphs, a method for finding the number of perfect matchings is used involving so-called Pfaffians. Some graphs can be oriented in a way that, when representing the graph by its adjacency matrix, the Pfaffian of the matrix enumerates the perfect matchings of the graph. The orientation is called a Pfaffian orientation. The physicist Kasteleyn has shown that every planar graph has a Pfaffian orientation. The method of constructing such orientation is applied to a rectangular lattice of dimension $m \times n$ and a similar approach has been used to find the number of perfect matching of a rectangular lattice with periodic boundary conditions. Coverings of lattice graphs have applications in the field of condensed matter physics and statistical physics.